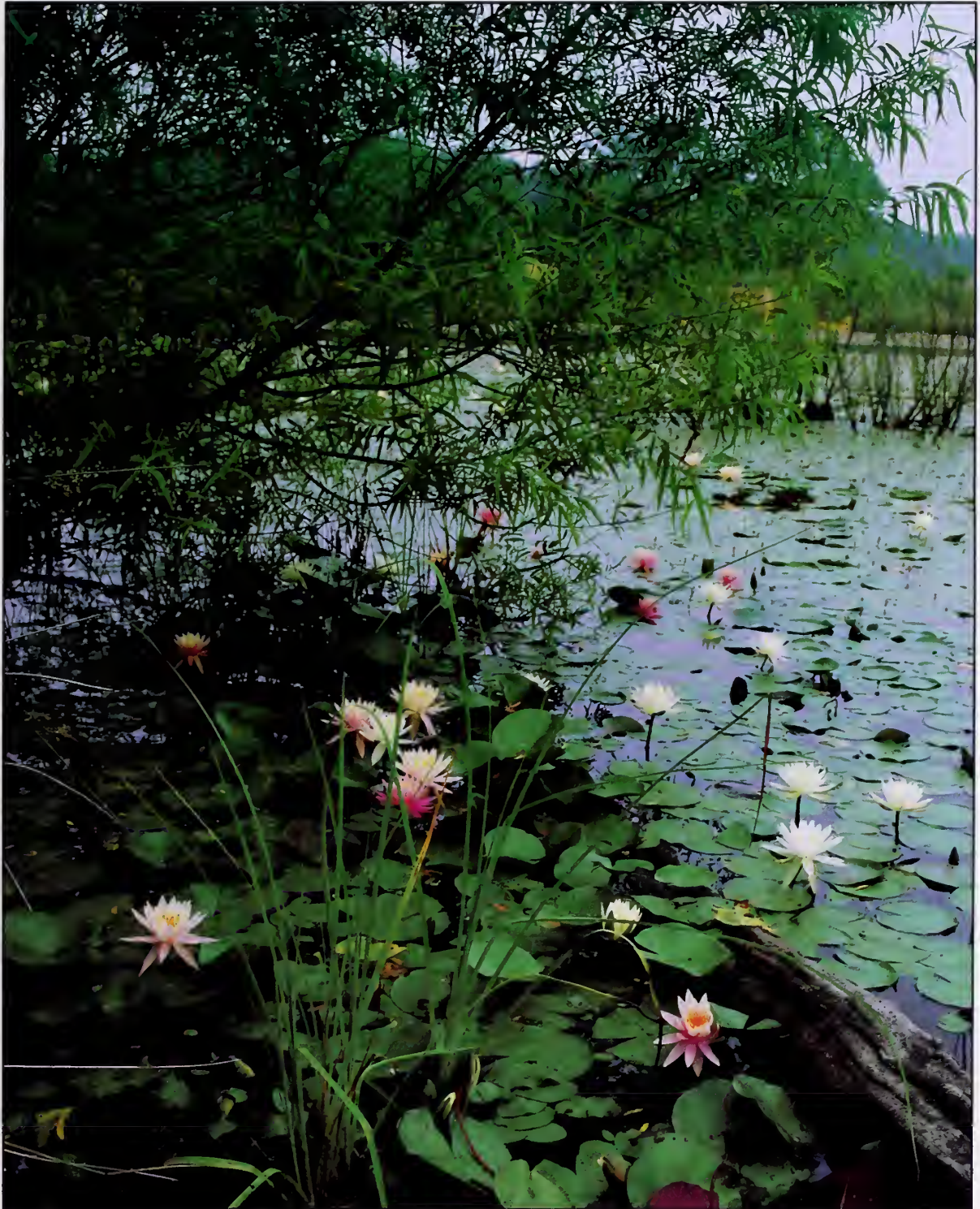


VIRGINIA WILDLIFE

JUNE 1990

ONE DOLLAR



Editor's page

Let the dogs out of their pen the other day, and as usual they went streaking down the street in and out of neighbors' yards. It was about 7:30 in the morning, so there weren't many people about to witness the verbal abuse my dog rightly received from a crotchety old woman who just stood at her screen door and yelled while my golden retriever pooped on her lawn. "Get out! Get out! I'm going to call the game warden!" she screamed. I counted myself lucky that the woman was old enough to think game wardens still pick up stray dogs and that she didn't know what outfit I worked for. Besides, thought I, a bit indignant at her outrage, what's a little dog poop on her front yard? There's always some on mine.

That self-righteous attitude didn't last long. I ended up sneaking down the street after putting the dogs up and scooping up the poop, hoping she wouldn't rush out of the house and hit me upside the head for trespassing a *second* time.

That's the kind of incident that starts up the law-making process, it seems to me. I *know* that leash laws must have been the direct result of inconsideration like mine. People get tired of putting up with rude behavior, so they pass laws and leave it to law enforcement officers and the courts to deal with the irritation. After all, laws make living with others a whole lot less confrontational. You can smile sweetly at some jackass letting her dog poop on your lawn and then walk back in the house, call the dog warden and get your neighbor busted.

The problem is that once a law is on paper, it too often loses its ethical sting. For

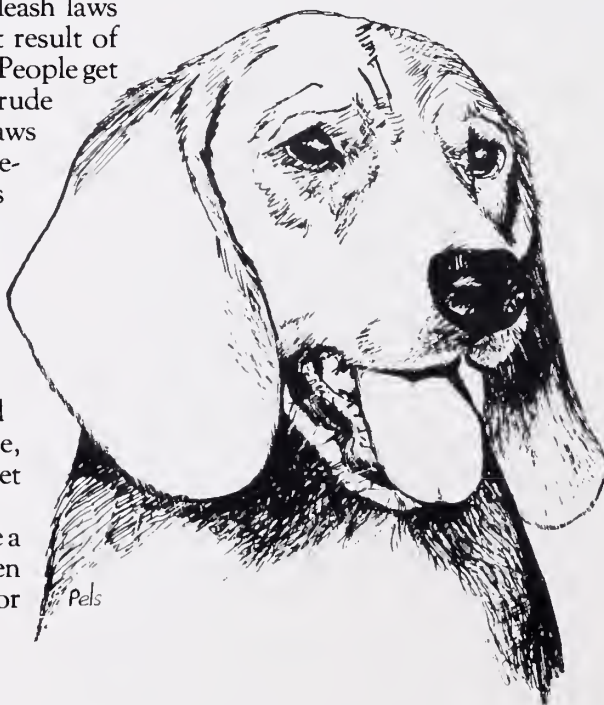
example, it's no longer a blemish on your own personal integrity if you cheat on your income taxes and get away with it, or slip through a loophole in a wetlands law and build a house on a fragile site that should have been left alone. It's no longer some cross old lady shouting about your rude behavior and making you feel about two inches tall. Now, it's just a summons and a fine to pay. The judge doesn't take it upon himself to chastise you for your inconsideration to the rest of society. After all, that's what the penalty for breaking the law is for.

Precisely because laws don't have any ethical punch anymore, I think we've lost respect for them. Once they are in place, we figure out how to get around them, how to work through them, and how to avoid them—without getting caught. Truthfully, who respects a law enough anymore to ask themselves why the law was made in the first place? And who among us takes it one step

further and ponders the value of a law as a guide to the proper way to live?

Think about the imperfections of laws for a moment. Think about the compromises that were made along the line; compromises that benefited one interest group or another, or lessened the penalty, or made things easier for a society trying to police its own actions. Doesn't it make sense to realize that a law is a watered-down version of what you *should* be doing? Wouldn't it make sense to take a law, say, on pollution control, or land use, or auto emissions, and *do more*? I mean, if the intent of the law has gotten mangled in the process of being written down, then it seems to me that if we *truly* want to do the right thing and become better people, we should try to go beyond the law, and look toward achieving its *intent*, not just its *letter*.

Actually, I'm beginning to believe that we would do a whole lot better if we didn't make many more laws, and instead started deriving a bit of satisfaction from facing the challenge of doing the right thing according to experience and the good advice of others. It would save a whole lot of money on fines collected and taxes paid to support the legal system; it would squelch a whole lot of selfish rationalization (especially when you got honest opinions on your actions from other folks), and it would probably make us much better people to be around. Plus, if you ever slipped up and made a bad decision ('cause you know the temptation will always trip you up), you could always go back and scoop up the evidence of your mistake—when nobody was looking. □



Jason Shepherd

VIRGINIA WILDLIFE

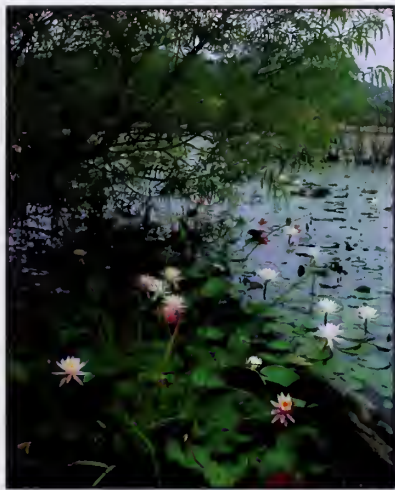


photo by Rob Simpson



Wildlife rehabilitation grows up; see story p. 18.

Front and Back Cover

June is a special month for anglers and boaters. Help us celebrate National Safe Boating Week from June 3-9 and National Fishing Week from June 4-10. Practice safe boating techniques and take a kid fishing! (Front cover: photo by Roy E. Lowe. Back cover: photo by Soc Clay)

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Teach 'Em Right

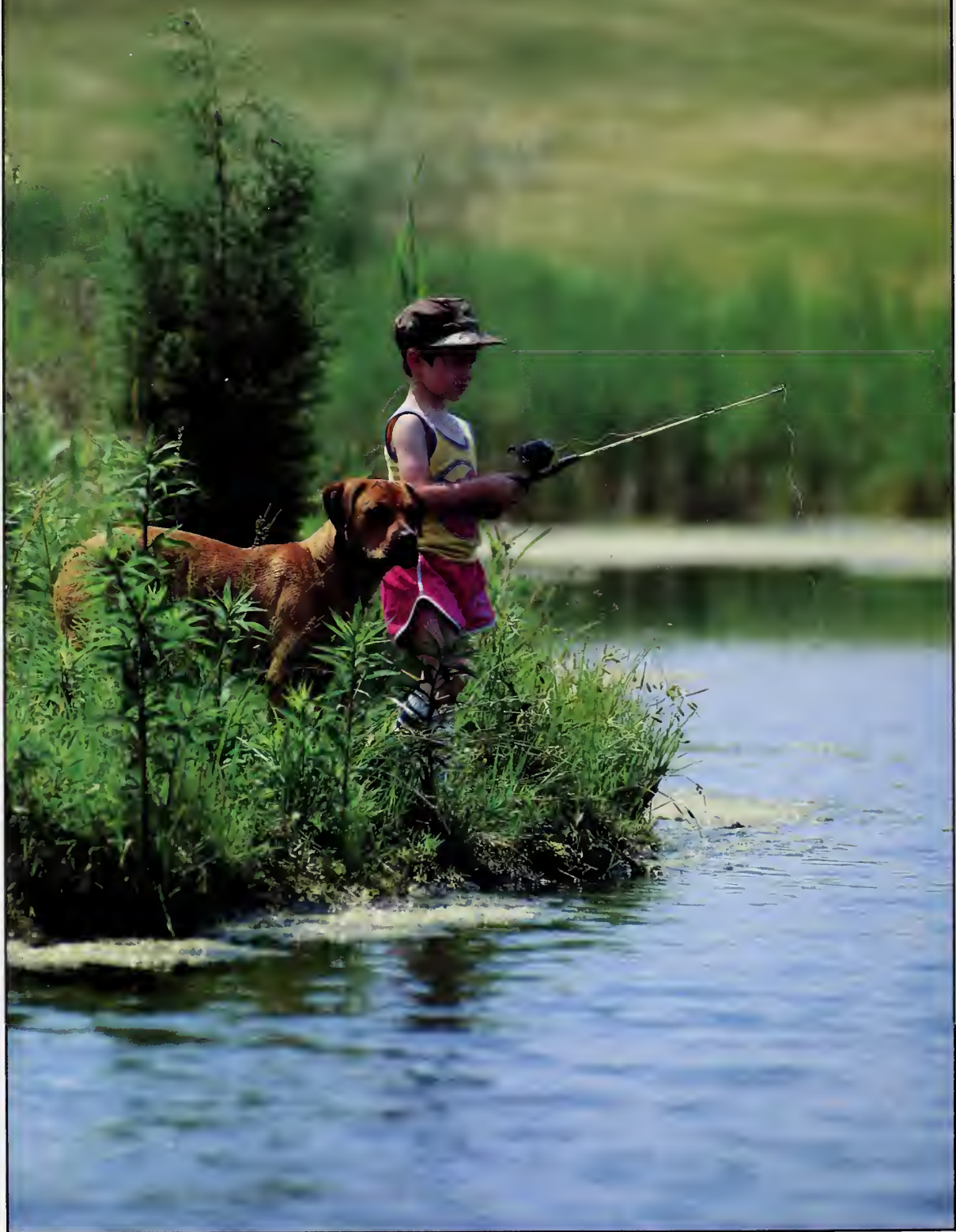


photo by Rob Simpson

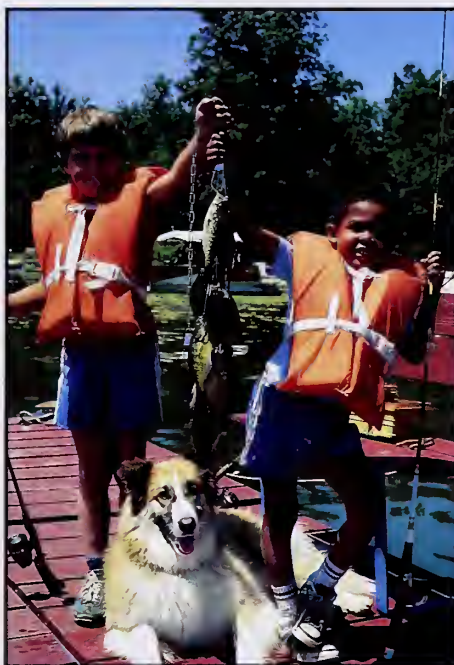
by Bruce Ingram

Certainly one of the best ways for parents and their children to spend time together is by going fishing. As parents of a seven-year-old daughter and a four-year-old son, my wife Elaine and I cherish the time afield with our two kids. But, as someone who has had some marvelous days on the water (and unfortunately some outings that can only be classified as real angling misadventures), I've learned that there is more to introducing your brood to fishing than handing them a rod and a carton of nightcrawlers.

The first and foremost decision to make is just when to introduce your child to fishing. Sarah's first trip occurred when she was four, and she and I spent a pleasant afternoon at a creek near our home catching sunfish and rock bass. I would cast, and when a fish struck, help her set the hook. My daughter would then land the panfish all by herself.

Sarah received just the right amount of help to get the job done, yet was able to experience the joy of actually beaching the fish all by herself. I felt confident Sarah would be ready for our initial excursion because we had spent a great deal of time talking about how to fish beforehand and had practiced casting in the backyard. My daughter had also expressed an interest in acquiring every piece of piscatorial paraphernalia that I myself had. I had given her my childhood fishing rod, and she even had her own "tackle box," consisting of used plastic worms and worn-out crankbaits (without hooks, of course). From the time my little girl was two years old, she had demanded to be taken fishing.

Thus, when Mark turned four years old, I thought he, too, was ready for his first trip. I couldn't have been more wrong. Looking back, I should have realized that Mark was not as mature for his age as Sarah was. During the drive to a local pond, Mark kept inquiring if we were "going



The fish don't have to be big to be trophies for kids; photo by Doug Stamm.

Introducing your kids to fishing is a delicate affair. Don't push them too far too fast, and always adhere to the golden rule: fun.

to catch any turkeys." My daughter, meanwhile, was rolling her eyes at her brother's "stupidness" (her words).

Upon our arrival, Elaine helped Mark quickly catch four bluegills. Perhaps the fish came too quickly and easily; the tyke soon demanded that if there were no turkeys at the pond, he wanted to go home—right now. Sarah, however, who had by now progressed to casting and retrieving all by herself, stubbornly proclaimed that she was not leaving

the pond until she caught more fish than her little brother. Sibling rivalry is a terrible thing when combined with two headstrong children.

The solution? Elaine and Mark forgot all thoughts of fishing, and instead walked around the pond, threw rocks, looked for frogs and turtles, and ate part of a picnic lunch. They had a grand time, and Mark learned that turkeys don't sport fins, that there is more to do on a fishing trip than just fishing, and that a day spent on or by the water is truly a fun day.

Meanwhile, I persuaded Sarah to let me help her catch more fish than her brother—provided that she not boast about her feat to Mark. I also told her that for the good of the pond and because other boys and girls might want to catch these same panfish, we were going to release everything we landed. My little girl did land that magical fifth sunfish, and I feel she also learned several lessons: that bragging and being overly competitive is not a good thing in fishing (or in life, for that matter), and that catch and release is often the polite thing to do. For a child, a day spent fishing can really be a time when many of life's lessons can be learned.

Just as there is no set age when a child is "ready" to go fishing, we shouldn't write in stone about what kind of tackle is best for a kid who is just beginning. For example, Sarah quickly learned how to use my old spincasting reel, and at age seven can even cast a little with my spinning outfit. Mark, on the other hand, can't even make casts with the spincasting rig—most casts land with a loud plop right at his feet.

To make things easier on the boy, I removed the rod from his reel and tied six feet of mono to his rod tip. All he has to do is swing his bait out over the water and he's ready to fish.

It is important, also, to allow your children to decide if they'd like to bait their own hooks. Sarah, for example, experienced no remorse at the ages of five and six about threading a crawler on a hook. At age four,

however, she was afraid to touch the things, and now at age seven, "worms are gross" (I must add, though, that right now a worm is just one of a multitude of earthly creatures that are "gross" according to Sarah.). Conversely, Mark, at age four, experiences no pangs of guilt about doing a worm in, and demands that he be allowed to do his own baiting.

Don't overlook the use of artificial lures when your kids start fishing. Sarah has begun using dry flies for bluegills. Given her aversion for worms, I have begun tying on various patterns to the end of her line. About two feet from the fly I attach a bobber which makes the fly easy to cast and also tells her when a fish strikes. Admittedly, this isn't very sophisticated "fly fishing," but my little girl believes she is fishing like a grownup when she uses this rig. This coming summer I plan to show her how to use spinners and spoons.

Two other important considerations involve where you should take your child fishing and how much time you should spend at this destination. The parent may relish journeying to Buggs Island for bass or Smith Mountain Lake for stripers, but for a novice, a fish is a fish and it's the number of fish caught, not the size or kind. Most kids would rather do battle with 10 five-inch bluegills than one 15-inch largemouth. And most children—given their short attention spans—won't sit still (literally or figuratively) for a long drive to a distant lake. That farm pond just outside of town could well be your best bet.

When I was a kid, the father of two of my best friends took us all to a distant impoundment. It was a hot, early August day, and by the time we arrived all of us had bickered more

than a little. Matters were made worse when we discovered that the small lake had recently experienced a fish kill. We three boys all voted to just go back home, but the dad—so very much wanting his boys to enjoy the pastime he himself loved—opted to push on to yet another body of water, this one famous for its big trout.

The four of us arrived at the well-known river later that day and no one among us was even able to coax a strike from the trout. By the end of the day, open warfare had practically broken out among the dad and the

close to home, and when that son or daughter of yours asks to be taken home so he or she can play ball, read, or whatever, abide by the child's wishes.

Another very relevant aspect of teaching your kids how to fish involves patience. During one trip last summer, Sarah dropped my new fishing reel into the water, Mark accidentally kicked the worm carton into the pond, Elaine left some of our lunch at home, and I forgot the bobbers. I admit that I would have liked to have snapped at my offspring when the reel and worms joined the aquatic world, but I decided to just grin and bear it. The reel was retrieved, the worms dried out, we all made do with the food at hand, and I fashioned a makeshift bobber out of some cork. And a good time was had by all.

Just as my family can't make it through a meal without knocking over the milk glass or spilling the peas, we are destined to have a certain number of mishaps on our fishing outings. Chances are your family will have similar snafus when you go out on such adventures. Be patient with your kids.

I truly believe there is no finer way for a family to enjoy the outdoors together than to go fishing. Bring along plenty of

snacks, books, and games in case one child's fishing enthusiasm wanes while the other's still waxes. And when mom and dad want to do some serious fishing, leave the kids at home. When you are with your kids, the time should be reserved for some "serious" fun. Most importantly, remember that fishing can be the sport for a lifetime—if you start your kids out right. □

Bruce Ingram is the Virginia editor for Outdoor Life magazine and a frequent contributor to Virginia Wildlife.



Seven-year-old Sarah Ingram learned the joys of fishing early, mainly because her parents insist that the sport should be fun and not work; photo by Bruce Ingram.

two boys. Though the four of us had often gone fishing together in the past, we never again went on a trip as a group. The two boys had given up on the sport by the time they became teenagers, often citing that disastrous excursion as the reason. And today, when the father goes fishing, he does so by himself. Sometimes we parents in our desire to share our interests with our offspring end up turning them off to the things we love the most. Keep your early fishing trips with your kids brief, simple, and



Take a kid fishing with his fun in mind and you'll have him hooked on a lifetime sport; photo by Rob Simpson.

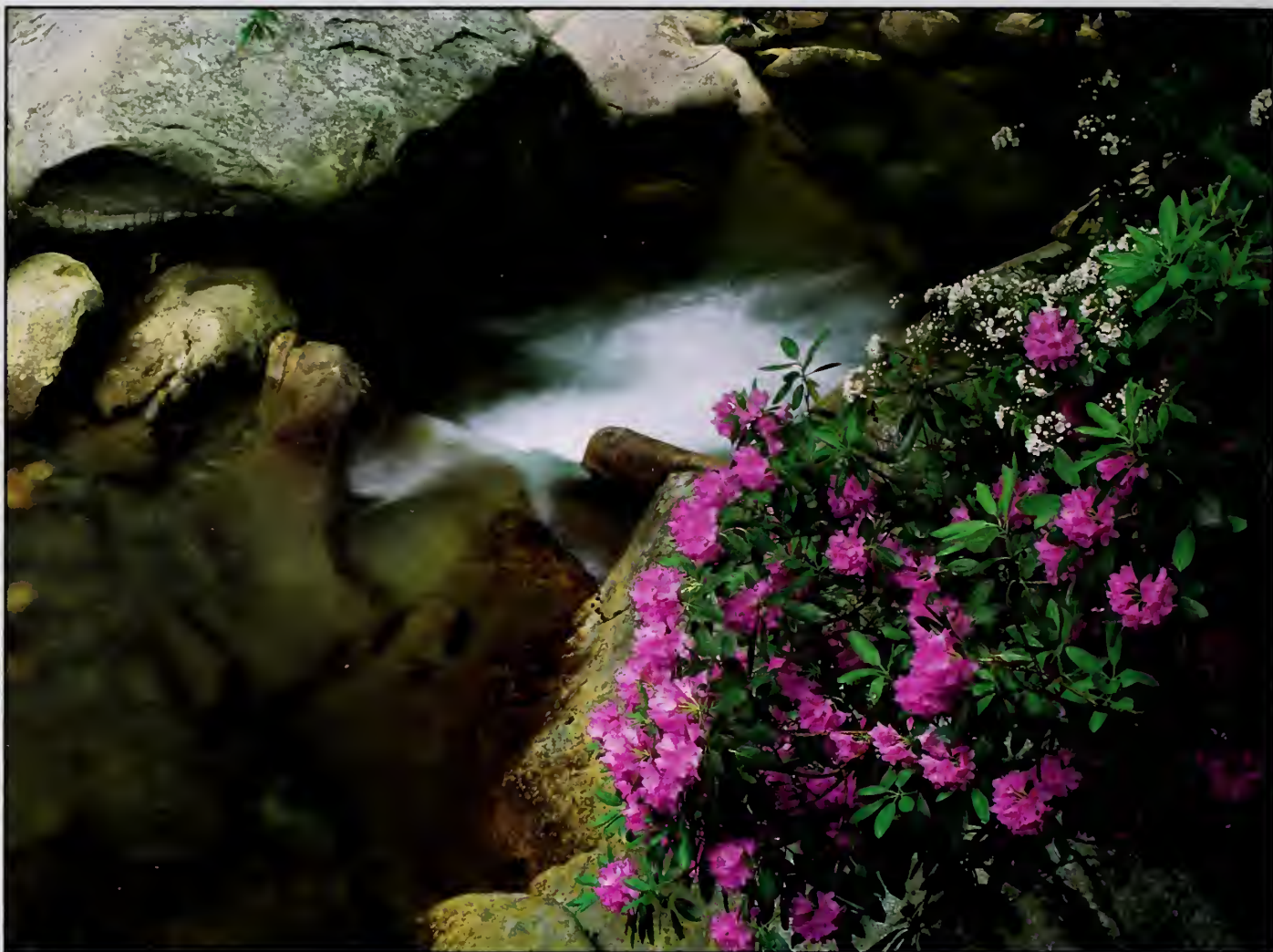
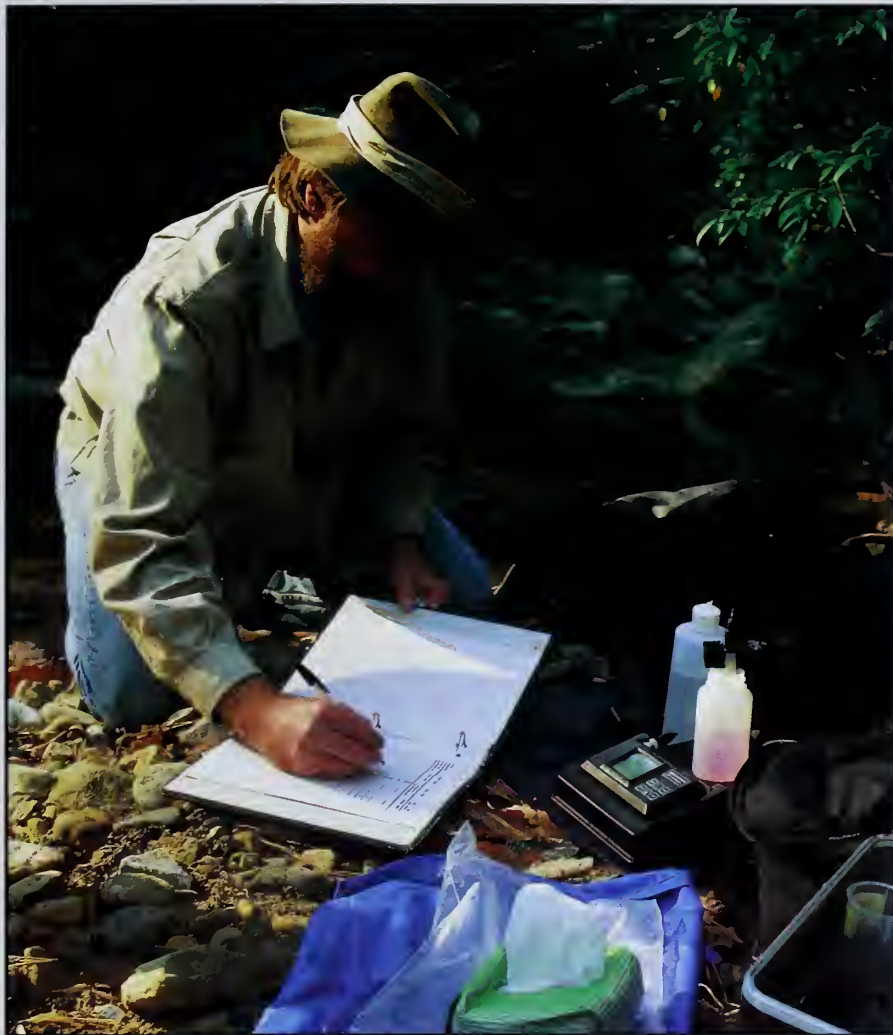


photo by Bill Lea

A Clouded Future:

*Acid Rain and Wild Trout
in Virginia.*

by Chris Camuto



By recording water quality and biological data on Virginia's trout streams, scientists are able to monitor the effects of acid rain on our trout fisheries; photo by Roy Edwards.

Research funded and assisted by Virginia's Department of Game and Inland Fisheries indicates that much of the Commonwealth's wild trout habitat is seriously threatened by the effects of acid deposition.

Most people are probably familiar with the term "acid rain," a name for an environmental phenomenon that has been making scientists nervous since the late 1970s. Today, Virginia's trout fishermen are having to face the grim predictions of those who warned us of its dangers 20 years ago. Based on findings of an ongoing study funded by the Department of Game

and Inland Fisheries (VDGIF) and conducted by the Department of Environmental Sciences at the University of Virginia, it appears that the complex effects of man-made acidic precipitation are about to threaten Virginia's wild trout population.

Although we think of "acid rain" as a contemporary problem, the term was coined in the 1800s by a British scientist, Robert Angus Smith, who had observed the effects of air pollution caused by coal combustion in and around Manchester, England. You did not need to be a scientist to see that one of the first casualties of the Industrial Revolution was clean air, but Smith was the first to make direct connections between the burning of coal, the acidification of rain-

fall, and a number of harmful environmental effects.

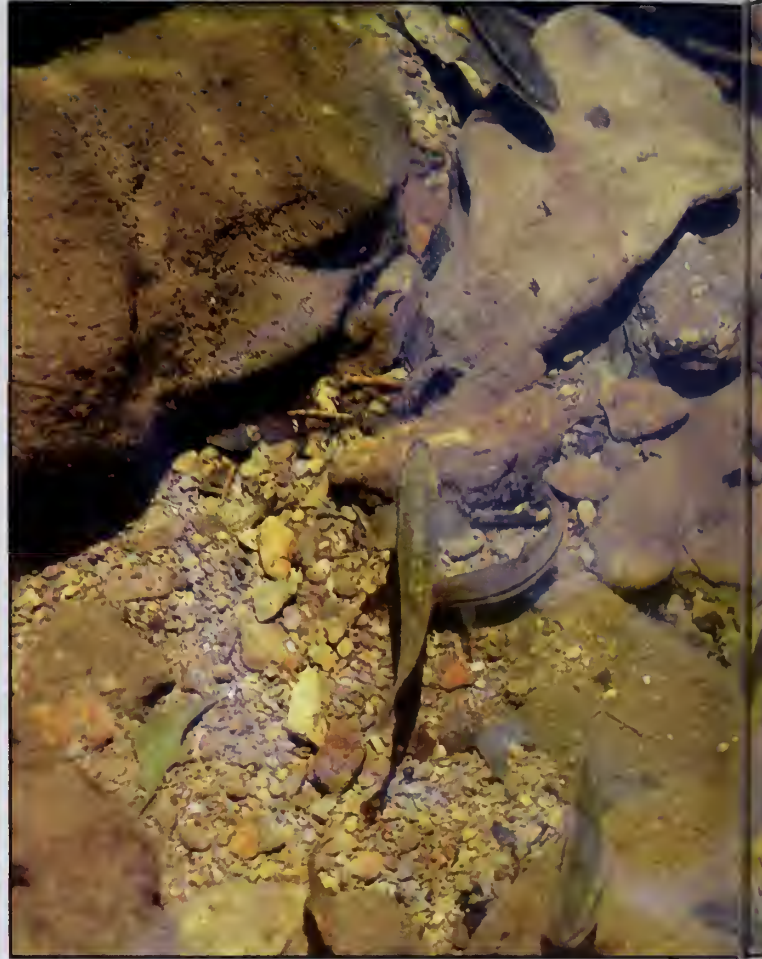
Although acid deposition has proved to be complex in its nature, its cause has been clear since Robert Smith's day. Burning coal and other fossil fuels releases sulfur dioxide and nitrogen oxide into the atmosphere. Acidic gases and particulates from smokestacks and tailpipes come back to haunt us as acidic compounds that eat away at statues and buildings, depress the productivity of croplands and forests, disrupt the ecology of mountain watersheds, and damage our lungs.

Now the problem has come home to Virginia. Although unpolluted rainfall is naturally slightly acidic, the acidity of Virginia's precipitation has increased to harmful levels in recent decades, due primarily to increased sulfur and nitrogen emissions from the burning of fossil fuels. Rainfall in Virginia now has an average pH of 4.27, ten times more acidic than normal. Whereas unpolluted environments receive 2-3 lbs. of sulfate per acre per year in rainfall, Virginia's Blue Ridge and western highlands currently receive about 25 lbs. of sulfate per acre each year, a higher rate of deposition than in the Northeastern United States. Dry deposition adds at least another 25 lbs. of sulfate per acre each year. This load of sulfate deposition comes from local, regional, and transregional sources. Power plants and heavy industry in the Ohio and Tennessee Valleys, as well as within the Commonwealth, and automobile emissions all contribute to the problem.

Air pollution respects no boundaries, and the most pristine wilderness areas are as vulnerable as our cities. Shenandoah National Park receives the highest rate of sulfate deposition among National Parks in the country. (The Great Smoky Mountains National Park is second.) In the history of acid rain awareness, in fact, serious biological effects have shown themselves first in remote regions, downwind of the sources of the sulfate emissions. And trout, char, and salmon—hardly city-dwellers—have traditionally been early



VDGIF Fisheries Biologist Larry Mohn and University of Virginia students sampled the St. Mary's River in June 1988. With the stress of acidification, the trout fishery in the river is losing its rainbow trout, blacknose dace and acid-sensitive aquatic insects such as mayflies and stoneflies; photo by Chris Camuto.



Blacknose dace are a more sensitive fish to acidification than trout, and an early warning sign of changes in stream chemistry; photo by Chris Camuto.

indicators of acidification. Dramatic decreases in salmonid populations in Norway and Sweden in the 1920s, in eastern Canada in the 1960s, and in New York's Adirondacks in the 1970s were all warning signs that unusually acidic precipitation was having serious and irreversible biological consequences. Concern has turned in recent years to the fate of Virginia's wild trout. A decade of research has turned up disturbing results.

In 1979, VDGIF fisheries biologists Larry Mohn and Paul Bugas completed an inventory of Virginia's wild trout habitat. They were pleased to locate almost 450 trout streams in the mountainous regions of the state that still supported naturally reproducing trout populations—more than

2,000 miles of wild trout water. In addition to 1,340 miles of native brook trout water, they found 660 miles of naturalized rainbow and brown trout habitat.

In that same year, while VDGIF was rewriting trout fishing regulations in the interest of protecting this valuable and irreplaceable resource, the Department of Environmental Sciences at the University of Virginia (UVA) began a watershed monitoring research program in Shenandoah National Park. The 30 native brook trout streams in the Park constitute some of the best wild trout water in the state and are known nationally for the superb small-stream fly fishing they offer.

The National Park Service's Shenandoah Watershed Study (SWAS),

was an attempt to monitor in definitive detail the effects of acid deposition on several streams at weekly intervals over a long period of time. Assessing the acidity of a trout stream is, needless to say, a complex process, hardly a matter of the litmus paper and color charts many of us encountered in high school chemistry class. In fact, Dr. James Galloway and his fellow researchers at UVA were not so much concerned with a one-time reading of the pH of a stream as they were with understanding the complex process of streamwater acidification in forested watersheds—a process that crosses atmospheric, geological, chemical, and biological boundaries.

By 1989 SWAS had established that: (1) Shenandoah National Park



air disappearance from a stream is often an

watersheds were receiving heavy loads of atmospherically-borne sulfates; (2) that the buffering capacity of many watersheds was being exhausted by these loads; (3) that significant changes in streamwater chemistry were taking place, and (4) that these changes would lead to the death of these trout streams. Galloway and his team hypothesized that the unglaciated soils of the Southern Appalachians which were neutralizing a good deal of the deposition load, had given these streams a *temporary* reprieve from the full effects of acid deposition. That buffering capacity however, is very thin and will eventually be exhausted. Once the buffering capacity is gone, so go our trout streams.

In fact, the pH of sensitive streams

has been declining. The streams most closely observed have been found to be in a "state of ecological deterioration," entering "biologically critical" ranges of acidity. SWAS concluded that there was "a poor prognosis for aquatic ecosystems in large areas of Shenandoah National Park" and predicted that 25 percent of its streams would eventually be acidified to the point that brook trout could no longer survive in them.

As trends of the SWAS findings took shape, VDGIF and Galloway and George Hornberger took on a comprehensive study of the acid sensitivity of Virginia's mountain streams.

The first phase of this Virginia Trout Stream Sensitivity Study (VTSS) was a far-reaching stream sampling effort conducted in the spring of 1987. The study called for taking an initial "snapshot" of the chemistry of Virginia's native trout streams. The Virginia Council of Trout Unlimited organized 200 volunteers from nearly every environmental group in the state to help. They collected streamwater samples from 349 streams during a hectic 13 days in late April and early May. This information allowed the UVA researchers to hypothesize about past and future acidification and to begin monitoring trends in chemical changes on more than 60 streams.

Unfortunately, the findings of this study give us no cause for celebration. The study found that 93 percent of the streams monitored were sensitive to acidification; that 49 percent of the streams were extremely sensitive; and that 10 percent of the streams were acidic. This means that most of Virginia's wild trout habitat is vulnerable to acidification.

A trout stream, any trout fisherman can tell you, is not a bunch of statistics; it is a living system of interrelated life forms, an ecologically complex food chain that leads from microscopic algae to familiar aquatic insects like mayflies and stoneflies and caddis, to forage fish like dace and sculpins, to wild trout. While the UVA studies were documenting changes in stream chemistry

due to acidification in the 1980s, Game and Inland Fisheries biologists Paul Bugas, John Kauffman, Larry Mohn, and Price Smith looked into disturbing biological changes in the St. Mary's River in Augusta County.

The St. Mary's, with wild populations of brook, brown, and rainbow trout, is known as one of Virginia's best trout streams. Although the river and its 10,000-acre watershed is protected from development and misuse by its status as a wilderness area within the George Washington National Forest, it is not immune to the westerly winds that carry acid in their clouds. Plus, the VTSS had determined that the St. Mary's was a poorly buffered, extremely sensitive stream, one which would undoubtedly suffer severely from acidification.

It seems the VTSS prophecy has come true. The most significant signs are a decline in the population of rainbow trout, the most acid-sensitive trout species, and the near disappearance of blacknose dace in the upper reaches of the river, where stream pH is lowest. The dace are more sensitive than any of the trout to acidification, and are considered a reliable early warning sign. Furthermore, the biological diversity of the river is in sharp decline—acid-sensitive species of mayflies and stoneflies are fast disappearing while acid-resistant species of aquatic insects are thriving.

The facts emerging from Virginia's trout streams indicate that acid deposition will, over the next few decades, reduce Virginia's wild trout habitat and threaten the survival of Virginia's remnant wild trout populations. The first step to take to solve the problem has been clear for some time: reduce man-made emissions of sulfur dioxide and nitrogen oxide into the atmosphere—on both a local and a national level. Not taking such action will be costly for one of the most brilliant forms of Virginia's wildlife. □

Chis Camuto writes about the trout and environment for Trout, Fly Fisherman, Sierra, and other publications. His A Fly Fisherman's Blue Ridge will be published by Henry Holt this fall.

Fishing Smart

by Harry Murray



photo by Harry Murray

Virginia has more first-class smallmouth bass rivers than almost any state in the nation. Why then, do so many anglers catch only junior-sized bass, or nothing at all?

The problem lies in *reading the water*. By this I mean evaluating the section of the river you are about to fish and matching the appropriate tactics to that specific stretch.

This is actually a three-step procedure. First, you should study the specific area you plan to fish in and attempt to determine exactly *where* the bass will be located. Next, you must consider the depth of the water and general bottom composition in order to understand *how* and on *what* the bass will feed. Finally, you should decide how to best approach this water without spooking the bass, so you can present your flies and lures in a manner which mimics the natural foods the smallmouth is accustomed to feeding on in this area.

Anglers new to smallmouth rivers can easily draw on previous fishing experiences in order to help answer these questions. Largemouth fishermen will find many similarities between the slow sections of these rivers and the impoundments they frequent. Trout anglers, especially those accustomed to freestone streams, will be able to apply their entomology and knowledge of currents as they relate to feeding stations. Finally, as you mature in this river smallmouth game, you will learn to blend all of these previous experiences, and through diligent observations, develop productive tactics on the whole stream.

Since there are so many different characteristics within short sections of our rivers, let's set up one model pool which will illustrate these features. I will start at the extreme upstream section of this pool and fish my way downstream to the tail of the pool.

The riffle entering the head of this pool is typical of many such areas throughout Virginia. There is a moderate current with water one and a half to two feet deep, flowing over stones ranging from golf ball to softball sizes. This is perfect cover for hellgrammites, as well as mayfly, caddisfly and stonefly nymphs. Great populations of chub and sculpin minnows also abound in these areas. This tremendous diversity of food provides a constant supply for the entire pool, but fishing the upper portion of these riffles normally produces only small fish.



By reading the water in your favorite smallmouth stream you will be able to pick the right lure to get those bass to bite; photo by Doug Stamm.

The tumbling nature of the water helps hide our approach as we wade in from upstream. This aspect, along with the fact that the young smallmouths are quite willing to accept almost anything we offer them, makes this stretch a good ego builder. For this reason I start many beginning anglers in my smallmouth fly fishing schools in these areas.

The technique for fishing these shallow riffles is very simple. The abundance of natural foods and the uniformity of the stream bottom prompt the bass to spread through-

out the area. Starting on the side of the riffle at the upper end, I like to fish my way downstream. If I am using a fly rod, I find that a size 6 White Marabou Muddler is very productive here.

A good method to fish this section involves casting the fly across the stream and retrieving it with a slow six-inch darting action. The vibrating action of the marabou will bring a strike from almost every smallmouth that sees the fly.

If I am using a spinning or casting outfit in these shallow riffles, I find

Take the time to read the water in your favorite small-mouth river before you start casting and you'll take more and bigger fish.

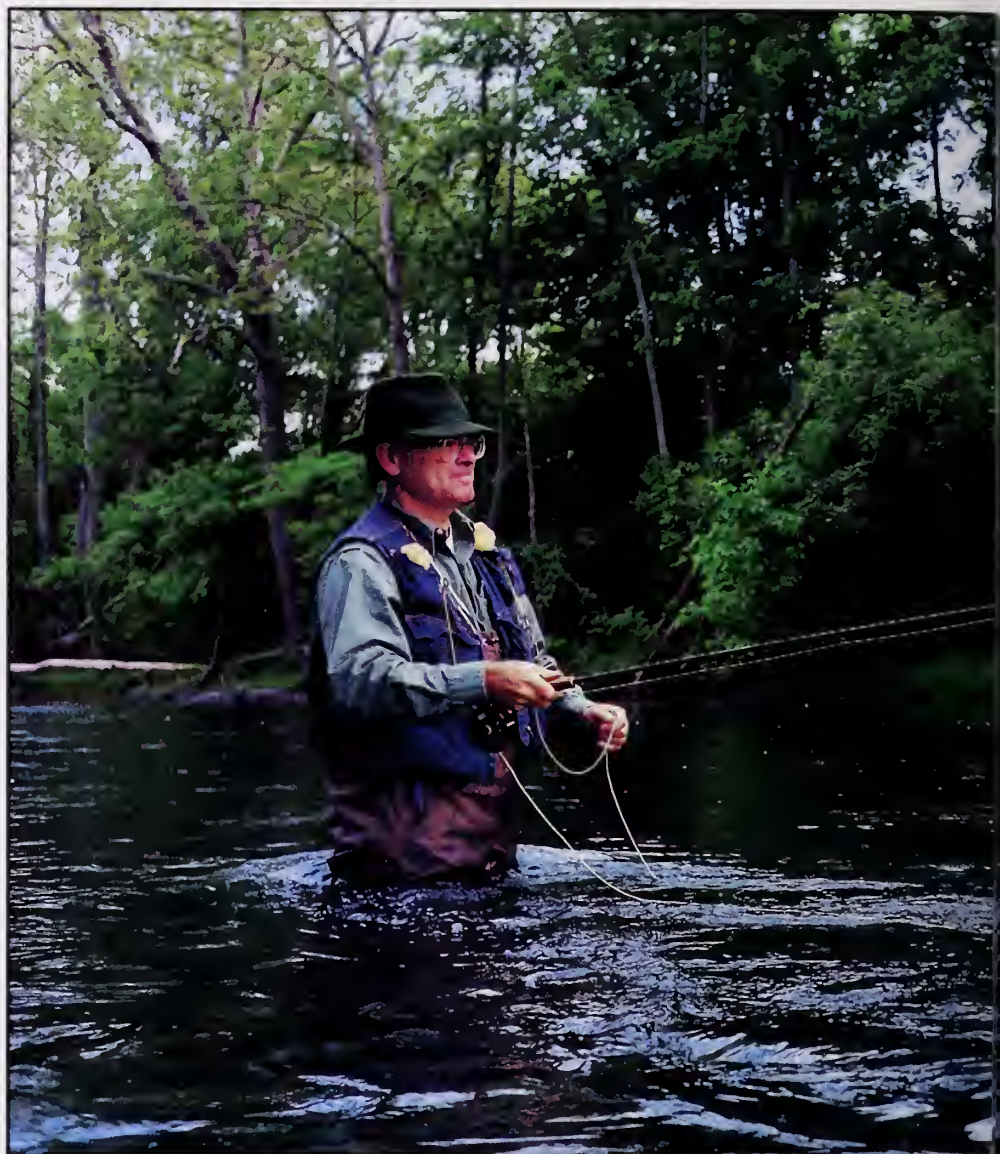
that the floating, shallow-running plugs such as the silver Rapala and Rebel in one-eighth to one-quarter ounce sizes will also produce many strikes. My favorite technique with these plugs is to cast them across the current and retrieve them with an intermittent crank-pause-crank action.

As this riffle works its way further down into the pool the water gets deeper with many pockets reaching three feet deep. The bottom cover changes slightly with many rocks the size of basketballs. Larger bass are more comfortable in this slightly deeper section of the riffle. They often move into this area early in the mornings and late in the evenings to feed on the enormous amount of natural food present.

Fly fishing these areas with a size 4 Shenk's White Streamer which matches the natural chub minnows can be very productive. I like to swim it carefully around the largest rocks and through the pockets. Whitlock's Sculpin Streamer in sizes 4 and 6 does an excellent job of mimicking the real sculpin minnows that live here. Care should be used to be sure these Sculpin Streamers are fished closer to the stream bottom where the bass are accustomed to seeing the true minnows.

A darting action, applied with the line hand, causing both of these streamers to lunge forward in the true minnow fashion can easily prompt solid strikes from small-mouth looking for an easy meal in these deep riffles.

When using my spinning or casting outfits in these areas, I've found that I get my best results with plugs that can easily be made to produce a lot of commotion either on the surface or just under it. Plugs such as the new Golden Eye Blabber Mouth and old-timers like the Creek Chub Dar-



Careful wading, so as not to spook the fish, is essential to consistently catch large fish, as is using the Murray.

ter are excellent examples. The game calls for casting the plug straight across the current and retrieving it with a jerk-drift-jerk-drift action. The object is to get the bass' attention with a tantalizing action, but then let the plug drift gently with the current for a foot or two so he can easily capture it. One word of caution; it is often necessary to set the hook with more gusto here than is normally required. There are two reasons for this: first, the plug will be on a slightly slack line on the dead drift, and we must compensate for that; second, the bass may inhale the plug very gently on the dead drift assuming this dying minnow is easy prey.

About 50 feet further down the river the pool takes on an entirely different character. Here there are many card table sized boulders scattered about by long forgotten floods. Around these obstructions the current has gouged out channels up to four feet deep.

Many large bass make their homes in these boulder strewn areas. This, along with the abundance of hellgrammites in the rubble bottom, means we have a setup where the bass' bedroom is close to his dining room.

For this reason I fish this water very carefully. I treat each automobile size run as if it held the largest



for them. There is an excellent reason for this. These grassbeds are loaded with food! Dragonfly nymphs, damselfly nymphs and shiner minnows abound here in almost unbelievable quantities.

A good way to effectively fish this water is to wade downstream parallel to the grassbed about 50 feet out in the river from it, and cast flies or lures in close to the grass. Damselfly nymph patterns and jointed Rebels are two of the best producers I use here. Keep in mind that the hot spot is immediately beside the grass, so don't be in a big hurry to retrieve your offering out into the open water.

A little further downstream in mid-river the water is about five to six feet deep and the current slows appreciably. The most consistent tactics here call for fishing our flies and lures right along the bottom.



proper flies or lures, such as those pictured right; photos by Harry

bass in the whole river.

My favorite and most productive technique calls for wading in below this area and fishing it upstream dead drift with a size 4 or 6 Murray's Hellgrammite Fly. (I can take little credit for this fly; Ron Kommer of Norfolk was primarily responsible for its design.) Working with short casts in the 20 to 25-foot range, the Hellgrammite is delivered upstream above the deep cuts around the boulders and allowed to drift back downstream just like the real McCoy would. Since the take is often very subtle here, I find that I can detect the strike best with a leader having about five feet of fluorescent Amnesia leader

material in the butt and two or three Scientific Anglers indicators spaced along its length.

I've had good success in this boulder water with various crawfish plugs worked along the bottom. As with the flies, I feel it is best to cast upstream in order to work the lures carefully along the bottom around the boulders.

A short distance downstream of the boulder water, an aquatic grassbed extends about 100 feet along the far bank, reaching about 20 feet out into the river. Unlike the boulder water, the smallmouth do not make their homes in these grassbeds. However, it is certainly a primary feeding area

Fly anglers will find a high density sinking tip fly line coupled with a six-foot leader very helpful in working these depths. With this rig it is possible to bounce a size 4 Olive Strymph convincingly along the bottom.

Crankbaits such as a Tadpolly or Shad Rap worked carefully along the submerged boulders in this area can bring jolting strikes. Experiment with various retrieves from slow steady cranking action to a stutter jiggling motion.

At the lower end of this deep water a flood deposited a 40-foot section of treetop from a huge oak tree. The trunk portion wedged against the

bank allows the current to swing the upper section downstream at about a 45-degree angle.

Since smallmouth bass are strongly attracted to feeding areas with overhead cover, we have a gigantic feeding station for many nice fish. The water beneath the trunk is three to four feet deep so in addition to being a great feeding area several large bass always call this home.

Realizing that the bass will be lying beneath the log to gain the shade it affords, I like to cast my offering as close to it as possible. I find this easy to accomplish if I approach it from upstream, staying about 60 feet out in the river. Bass holding in these areas can be very choosy about what they want to feed on.

I usually try surface attractors first, such as a Shenandoah Hair Popper on my fly rod or Tiny Torpedo plugs on my casting outfit. An effective way to fish these is to allow them to rest quietly upon the surface, tightly against the log, for a few seconds, then give them a slow, tantalizing action with periodic pauses as you retrieve them. If the bass do not go for my top-water lures, I will try them next with bottom-hugging offerings. Spinnerbaits and the James Wood Bucktail are good choices for this bottom work. With both of these I like to let them sink to the bottom and then crawl them back with a slow erratic action. Remember, the most productive area is right beside the log so don't be in a big hurry to get your lure out into the open water. Rather, work it slowly and carefully in tight.

The tail of the pool, just a short distance downstream, deserves special attention. Covering the last 300 feet of the pool, it ranges from three feet deep in the upper section to about a foot deep where the water filters out into the next pool downstream. The bottom composition is quite diverse here, ranging from bushel basket sized rocks scattered about in mid-stream, to a gravel bar tapering off from a feather edge on the far bank. You're right, this means food, food and more food.

The bass also are aware of the



Remember; It's food that the smallmouth is on the lookout for. You need to know where these insects or minnows hide out. That's why you need to learn to read your stream. (Above: Golden mayfly; photo by Rob Simpson.)

immense dining table. Early in the mornings and late in the evenings these tails of the pools are loaded with nice smallmouths.

If a large portion of this tail is about three feet deep and there is a moderately fast current, I approach it from upstream and fish it down and across stream.

When using my fly rod I like to try the Dahlberg Divers here. I use a firm strip with the line hand followed by a five-second pause every several feet of the retrieve. This causes the fly to dive beneath the surface and then bob back up, mimicking the action of a dying minnow.

Tiny Torpedos fished on a spinning outfit are also productive in the tails of pools. The same basic dart-pause-dart retrieve is often best here, but sometimes a slow uniform crank-ing action brings more strikes.

In the extreme downstream portion of these tails—and the whole tail, if the current is slow—it is best to approach from below and fish them up or up and across stream in order to prevent spooking the bass. Wade very carefully as you work your way upstream so you do not send out telltale waves. Noisy wading will actually chase the fish out of these areas. The Dahlberg Divers and the Tiny Torpedos are equally effective here, and the same irregular retrieve mentioned earlier is usually the best one.

If you want to make the best use of your time on your smallmouth rivers, you will find that accurately reading the water will give you more and larger bass. It really works! □

Harry Murray is a frequent contributor and among other pursuits, he teaches fishing and fly tying in Edinburg, Virginia.



A Helping Hand

The grandmother of wildlife rehabilitation in Virginia, Mae Hickman; photo by Cynthia Mahan.

Wildlife rehabilitators perform an important service in rescuing wildlife that have been injured, poisoned, or orphaned.

by Daphne Hutchinson

Once the province of good-hearted bunny huggers whose facilities consisted of a cardboard box under the kitchen table, the rehabilitation of orphaned and injured wildlife today is handled by more than 200 experienced and state-licensed volunteers, and professionals at the Wildlife Center of Virginia in the Shenandoah Valley. These dedicated people provide a valuable service to the Virginia Department of Game and Inland Fisheries by nursing back to health wildlife that may have been injured by automobiles, poisoned by pesticides, tangled in barbed wire, or orphaned in the wild. Without their support, countless animals which have been injured due to the thoughtlessness of man would be lost needlessly.

But, some might counter, why spend any time at all rehabilitating animals that will be released back into the wild to live—and inevitably die—anyway?

Say the rehabilitators: "How can we disregard the individual animals if we care for populations of wild animals? It's like turning away the hungry child who comes begging to the front door and then launching a fundraising campaign to end world hunger."

"All the rehabilitators all over the country don't treat enough animals to have any impact on wild animal populations," says Ed Clark, president of the Virginia Wildlife Center—the only one of its kind on the East Coast. "That's not the reason for doing it; that's not the defense for doing it. We do it because we owe something back to the wild animals whose homes we are disturbing and whose lives we are disrupting. And

we do it because rehabilitation can exemplify positive attitudes towards wildlife," explained Clark. "It is recognition that wild animals have intrinsic value that goes beyond their ability to give us pleasure or cause us inconvenience."

Dr. Stewart Porter, the Center's co-founder and nationally recognized wildlife veterinarian, chimes in: "Why do we need rehabilitators? Because wildlife gets into trouble. When that happens, we can either kill the animals, let any bozo who wants to play around with them, or we can take care of the animals. The humane thing to do is help the animals and get them back to the wild." Plus, Porter noted that in the process, much can be learned from these sentinels of the environment.

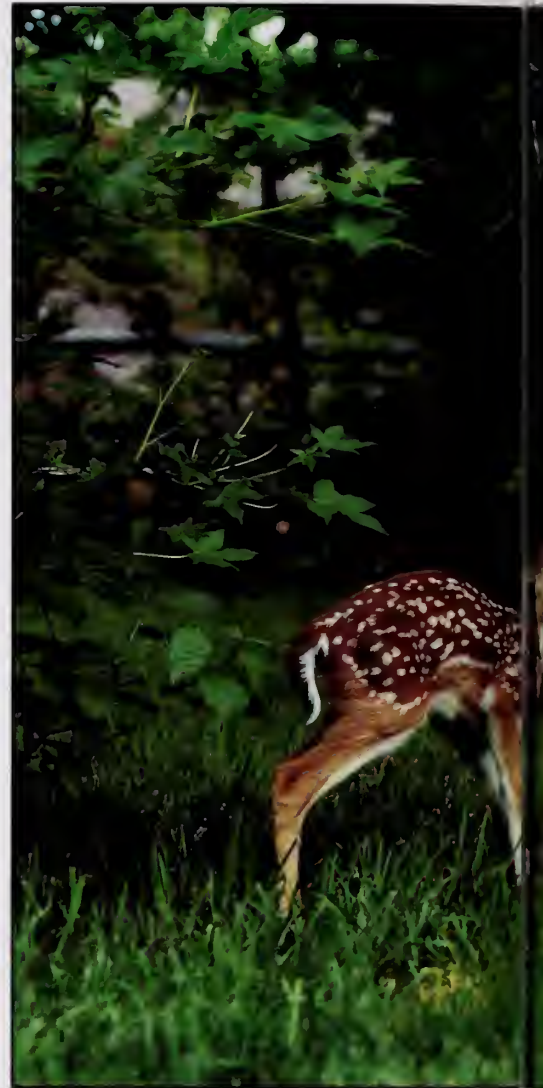
In 1983, in partnership with Clark, Dr. Porter founded the Virginia Wildlife Center. With a caseload jumping by 50 percent every year, the non-profit center took in more than 1,300 animals last year, representing at least 100 different species. "What we saw mirrors the whole range of environmental problems facing the state and the nation," Clark said, singling out the loss of wildlife habitat to development's sprawl as an example.

"Far and away, most of the animals that come in here have been hit by cars," Dr. Porter confirmed.

The Center also sees mammals that are victims of leg-hold traps and roving packs of dogs, and birds that are victims of pesticide poisoning. And a significant percentage of hawks, owls, and eagles brought in for treatment are targets of an element Dr. Porter refuses to dignify with the designation of hunter, even with the qualifying adjective "slob."

"We're not at odds with legal hunting at all," Clark emphasized. "But we're at great odds with illegal hunting and poaching."

"A lot of our animals come from hunters," added Dr. Porter. "I've had hunters blow a whole day of hunting to bring me a wounded osprey shot by one of those mental midgets with a gun."



State-licensed wildlife rehabilitators provide an invaluable service by properly caring for injured or orphaned wildlife. The Virginia Department of Game and Inland Fisheries, the agency responsible for all wildlife in the state, oversees the program, but only through the work of volunteers and the nonprofit Wildlife Center in Weyers Cave does the program work. Above: Virginia game wardens often temporarily care for injured or orphaned wildlife before they can be transferred to a proper rehabilitation facility, like the Wildlife Center, directed by renown wildlife veterinarian, Dr. Stewart Porter (right); photos by Lynda Richardson.



"I'll tell you a story," Clark continued, relating a typical example of the Center's hunter connection. "Three guys from the Richmond area who were hunting in Bath County the last day of deer season found a doe hung up in barbed wire. They untangled the deer and tore up the carpet from the back of their van to wrap her in so she wouldn't thrash about, and then they drove two hours to bring her to this facility. They even waited an hour or so to make sure she was going to be all right. They were getting in their van to go back to hunting, and I asked, them, 'Why, if you're going to kill deer, would you stop to rescue that doe? Why didn't you just shoot her?' I knew what their answer would be, but I wanted to hear it anyway. 'Look, it just wouldn't have been fair for us not to help her,' they said.

"And another time, a guy had hiked way back in the mountains to go hunting and found a hawk hung up with a foot in the forked limb of a tree," Clark continued. "It took that hunter two hours to saw through that limb with his pocket knife. Then he wrapped the hawk in his jacket and hiked two hours back down the mountain to bring the hawk to us."

While the number of deliveries from hunters is steadily increasing as word of the Center spreads, most of its patients come courtesy of Virginia's game wardens, either taken by the wardens themselves or by folks who have been directed to Weyers Cave by a wildlife law enforcement officer.

"If it wasn't for the Center, my place would be a zoo! Everybody and his brother brings animals to the game warden," says Tom McElroy, the warden in Greene County.

Prior to the opening of the Wildlife Center and the expansion of the network of wildlife rehabilitators, game wardens—and the wives of game wardens—were the usual care providers.

"We fell for that trap," says Mike Minarik, game warden sergeant based in Culpeper County. "My wife and I were suckers, especially for taking an orphaned deer. It can get out of hand



very quickly," he said, adding that the number of animals can grow to a point where the warden—or the warden's wife—would have to either stay home or be close enough to return every few hours for feedings.

"We'd only been married two weeks when Tom brought a bear cub home," recalled Lissy McElroy, Warden Tom McElroy's wife. A self-described country girl whose grandfather had raised turkeys, she was more fortunate than most; she had experience caring for orphaned and injured birds and animals. "It came along naturally. I'd read a lot about wildlife, and so I just tried to do it the same way a wild animal mother would."

She insists she enjoyed her role as keeper for the McElroy zoo, but still, there were times . . . "It wasn't too long after the bear cub," Mrs. McElroy recalled. "Tom told me, 'Don't go in the bathroom.' I thought we had a guest. Then he said, 'Shhhh! Come here,' and he opened the bathroom door. I thought that was a strange thing to do to a guest, but I looked in, and here's this hawk. Tom had opened the medicine cabinet, and the bird—it had an injured wing—was using the top of my medicine cabinet as a perch!"

With the advent of the Wildlife Center, the McElroys are down to a few pens and barn stalls for housing wildlife overnight. "We usually don't keep them any longer than that, unless the Center asks us to," Mrs. McElroy noted. "But I still have a supply of meat in the refrigerator just for the wild animals," she added. "All the wives of game wardens that I know do the same thing. It's a joint effort."

The Wildlife Center is alone in Virginia in being legally authorized to treat endangered and threatened species, but the rest of the Commonwealth's injured and orphaned creatures of the wild can be cared for by licensed wildlife rehabilitators. In fact, the Game Department is in the process of developing standards for rehabilitation facilities and an apprenticeship program as a requisite for

licensing as a wildlife rehabilitator. In addition, a game warden can grant a special permit on a one-time basis for rehabilitative care.

Warden Phil Parrish's approach is typical. The sergeant for Fauquier and Rappahannock counties issues a special permit when he determines that the level of care needed by the animal is within the capabilities of the first-time rehabilitator. "But I have them contact Mae Hickman for advice," he noted.

She's the doyenne of wildlife rehabilitators, a veteran of 45 years and thousands and thousands of critters returned to the wild. "The one and only," is how Warden Parrish refers to this irreverent 83-year-old grandmother who never hesitates to speak her mind.

Living in Arlington almost half a century ago, Mae Hickman had a kennel where she raised cocker spaniels. "Because I had dogs, all the kids thought I knew everything about animals and so they brought me everything they found. Of course, I didn't, but I soon learned. I had too—it just kept mushrooming."

At the same time, some friends took an animal cruelty case to court. "And they were laughed at! Now, you don't laugh at some women and get away with it. We decided to bind ourselves together and get organized so we'd have some clout." Thereby Arlington County got its first SPCA animal shelter, Mrs. Hickman reported. From her friends at the shelter, she took a baby squirrel that was going to be euthanized because no one knew how to care for it, and with the taking, she became the official repository for Arlington's wildlife.

"I used plain ol' good common sense," Mrs. Hickman said. "If you can raise a kid (and she raised four), you sure as heck can raise a bird. But it was trial and error. I lost a lot of things in the beginning."

There was no place she could turn for advice. "There wasn't any literature. There weren't any vets who knew anything about wildlife. And there still are only a few vets who know pea-turkey about wild things!"



Concerned veterinarians around the state volunteer their time and services to wildlife rehabilitation, like Dr. Clyde Christian of Brook Run Animal Clinic in Richmond (right) who performed periodic checks and treatment on young black bear cubs burned and orphaned in a forest fire several years ago before they were released back into the wild. When it comes to endangered and threatened species, however, the Wildlife Center in Weyers Cave, with its facilities devoted solely to the rehabilitation of wild animals and its high level of expertise, is the only facility authorized by the Game Department to treat these rare animals. (Above: Ed Clark, president of the Wildlife Center, with injured goshawk); photos by Lynda Richardson.

But today, there's plenty of literature on wildlife rehabilitation. And Mae Hickman wrote the bible on that subject, as Ed Clark puts it. "Mae was years and years ahead of her time. in setting standards for a specific diet, housing, and criteria to keep the animals wild," the Center's president said.

Care of the Wild, Furred, and Feathered was the direct result of mothers who called to ask "What do I do?" with whatever little Johnny had brought home this time. "Why don't you write a book? they'd suggest. My God, I've only got an eighth grade education! I couldn't write a book," Mrs. Hickman remembers thinking. But she "made little notes and made little notes" and one day, a friend found a publisher interested in the project. "That ol' book has been reprinted nine or ten times now," Mrs. Hickman noted.



About 20 years ago, the Hickmans moved to Fauquier County. She brought only a few little cages with her, thinking she'd left wildlife rehabilitation behind in Arlington. "Gordon Wilkes got me into this!" she said, encompassing with a sweep of her arm the cages in the basement and the aviary and pens outside. "I ought to kick him!" she said of the former Fauquier County game warden. But, clearly, hers is a labor of love. Besides, nobody makes Mae Hickman do anything she doesn't want to do.

She has no idea how much her wildlife rehabilitation hobby costs her. "While my husband was alive, I never would keep track of what I spent because I was always afraid he'd ask me!" Her partner of 60 years died two years ago, and she did keep tabs on the dollars that went for cracked corn and sunflower seed in

1988. It amounted to over \$3,500. To that, add the bills for dry dog food and cat food she uses as dietary supplements and the \$5 to \$6 per day that goes for chicken necks, giblets and other meat, and the total probably tops \$10,000 annually.

"So many people get into wildlife rehabilitation because they think it's glamorous. There's nothing glamorous about it," said Mrs. Hickman, as she slogged through the rain and mud to bring servings of dead rats and mice to the hawks, owls, and vultures recovering in her aviary from assorted wing injuries. "It's expensive, and it's hard work!"

"We need new rehabilitators all the time because so many drop out," she continued. "When you have a little thing that needs to be fed every few hours, you can't go out all afternoon to play bridge."

"So why do I do it? This ol' world

is going to be a hell of a place if we don't have any wildlife around," said Mrs. Hickman, explaining that rehabilitators serve as educators, raising the public's consciousness level on the needs and worth of wild things. "Besides, wild animals love their children just like we do. I think they're deserving of help."

And for 83-year-old Mae Hickman, there's another compelling reason for the 2-acre fenced paddock for orphaned fawns, the cages in the heated basement, the scattered pens and shelters in the big backyard of her 50-acre homeplace. With a rueful smile, she admits, "I just can't imagine not having something wild around."

So, what do you do if you're walking through a meadow and you stumble over a fawn hidden in the tall grass? Or you find a nest of baby rabbits on the edge of a woodlands



trail? What should you do?

"Leave them alone!" comes the chorus from Stewart Porter and Mae Hickman.

"In the wild, a mother doesn't sit there with her babies. She hides them in the grass or in a nest and comes back to feed them, maybe only twice a day. Chances are, the orphan you think you've found isn't an orphan at all," says Dr. Porter.

"A field is the natural place for a doe to drop her fawns," Mrs. Hickman notes. "She's off watching and wishing that people would mind their own business and leave her babies alone. Fawns only need help if they're crying. If they're crying, they're hungry, and that means something's happened to the mother."

"Then you need professional advice," says Dr. Porter. "It takes lots of work and energy, and it's expen-

sive (to successfully rear an orphaned wild animal)."

It also requires a permit—even for just a single baby bird—so the first call should be to the local game warden. Then the warden can provide the number for the second call to a licensed and knowledgeable wildlife rehabilitator. Or that second call can go directly to the Wildlife Center at 703/234-9453.

If for some reason contact is delayed, "use common sense," Mrs. Hickman advises. "A wild animal's metabolism is very different. They go into shock so fast. So they need quiet and they need warmth—that's very, very important."

This applies to both injured and orphaned wildlife. Young animals, in particular, require warmth and should be kept at a temperature of 80 to 85 degrees, according to Dr. Porter.

Injured animals should be seen either by a veterinarian skilled in treating wildlife or by an experienced rehabilitator. This is particularly critical where there's a broken bone or a chance of infection. It's for the animal's protection. Without proper cleansing and antibiotic treatment, even a minor wound—say from a cat bite—can be fatal. An improperly set wing or leg will leave the animals crippled, and cripples rarely survive in the wild.

For the prospective rehabilitator's protection, contact with raccoon, skunks, and foxes should be avoided, as these animals can be carriers of rabies.

The experts are adamant on another point: the touch of human hands will not doom a wild baby to abandonment. "The bond between mother and young is very strong,"



Orphaned wildlife come into the hands of the public in strange ways, like this baby screech owl that was found while cutting up an old tree that had just been cut down. Linda Sisk, a licensed wildlife rehabilitator in Richmond, received the chick and coaxed it into trying a bit of a mouse for dinner. The goal of wildlife rehabilitation in the state is to release wildlife back into the wild, not to make pets out of them; photos by Lynda Richardson.

Dr. Porter emphasizes. Not only should a baby bird be picked up and put back in the nest, but if the nest is damaged, it can be stuck in a soup bowl and the soup bowl wedged in the fork of the tree without deterring the mother from tending to her young. "You can put baby squirrels in a laundry basket at the base of a tree and the mother will get them," Dr. Porter says. "We've had people take a deer fawn back 24 hours later to the spot where they found it, and the mother came back."

Game warden Tom McElroy's bear cub adventure is a case in point. An anonymous tip had alerted the Greene County warden. "The mother had put the cubs into a tree. These people had spotted the babies, and they couldn't stand it. They cut down the tree to get the cubs!" the warden related.

McElroy loaded the cubs into his patrol car and drove them to Weyers Cave.

This was an adventure in itself. The cubs escaped enroute from their carrying case. "One was fine. He climbed up on the rear window ledge and stayed there. He looked just like one of those car ornaments!" the warden recalled. But the second cub wasn't so fine. He scaled the back of the driver's seat and decided to grab on to McElroy's ears for security. "He had me in a full nelson, and I just couldn't get him off with one hand. They look so small and cute, but they've got sharp claws and they hang on tight. So I just let him stay there and eventually he got down in the seat beside me, and then he was fine, too."

"When he got to the Center, Tom's arm looked like he'd run it through a

sausage grinder!" Clark recalled.

The warden deposited the cubs and had hardly made it back home when a call came in. A female bear was holding up traffic in the same area from which the cubs had been recovered.

"She was knocking trees down, stopping cars in the road, and tearing up the countryside looking for those cubs," Clark reported.

McElroy returned to Weyers Cave where he met Clark and they loaded the two cubs on the back of a pickup truck—this time in an escape-proof cage. "We put it down in the woods, opened the door, and waited. About 15 minutes later, I heard a deep growl. I turned around to ask Ed if he'd heard it too, but he was nowhere to be seen. He was back in the truck with the door locked!" McElroy reported. "I got the message pretty quick and joined him. 'Did you hear that?' I asked. 'Yeh, I heard that. It's the mother bear.'"

She reclaimed her babies and by the next day, the two cubs were spotted eight miles away from the release sight, again up a tree where the mother had sent them while she hunted. Only this time, the people called the warden instead of cutting the tree down, putting a happy ending on the story.

And that will be the denouement of most stories of injured and orphaned wildlife if the advice of the experts is sought and followed. "The regulations (on permits and licensing) are there for a good reason," Clark concluded. "Just because you love wild animals doesn't mean you know how to care for them." □

Daphne Hutchinson is a freelance writer and editor living in Washington, VA.



photo by Brad Herndon

It's Your Call

by C. H. "Kit" Shaffer

Turkey hunters who have spent considerable time pursuing those large game birds frequently have had to make some tough decisions. Numerous events, at times dangerous or unpleasant, involving other hunters, occur out there in the turkey woods. Often we hunters are forced to make decisions instantly about how we will react to a certain incident. Ultimately we must decide whether we want to be an ethical sportsperson, a dishonorable slob or a coward.

Rather than write a sermon-like article on ethical outdoor conduct, I have prepared a simple but subtle quiz with multiple choice answers. Naturally the readers have the option of policing themselves; thus the results of this questionnaire will be forever secret. However you choose your answers, let your conscience be your guide. Bite the bullet.

Case 1. You have hunted all morning over a large territory without even hearing a gobble. Finally you discover a red-hot tom, but unfortunately he is located on heavily posted private hunt club property. What do you do?

- a. Take a chance, sneak across the property line and kill that old tom turkey.
- b. Set up close to the property and try to entice the tom to the territory where you have permission to hunt.
- c. Depart the area, forget about that gobbler and search for a legal one.



Turkey hunting supremely tests the skills of hunters—and their ethics; photo by Carol Herndon.

What kind of sportsman are you? Here are 10 turkey hunting scenarios guaranteed to test your ethical fiber.

Case 2. While hunting in an isolated region, you accidentally discover grain scattered throughout the woods. There is a well-concealed blind nearby which contains empty shells and turkey feathers. From the abundant scratchings you realize that the turkeys are utilizing the area daily. You are angered that someone is illegally baiting your hunting territory and killing your birds. What do you do?

- a. Carefully stake out the area, wait and try to find out who is performing that dastardly deed.
- b. Pick up the grain; take it home to feed your chickens.
- c. Notify your local game warden or call the wildlife violations hotline.
- d. Ignore the bait, don't get involved and hunt elsewhere.

Case 3. You are hunting with a fellow who spends most of the time eating, drinking and littering the environment. His candy wrappers, cigarette butts, sardine cans and drink containers are spread throughout an especially scenic hunting territory. What do you do?

- a. Walk behind the individual, pick up his litter and carry it home in your hunting jacket.
- b. Give him hell. If you are bigger and stronger than he is, make him pick up and eat the garbage.
- c. Give him a man-to-man lecture on the evils of littering.
- d. Report him to his wife or minister.

Case 4. You are set up calling turkeys. A turkey responds to your excellent calls and finally arrives within gun range. You make an outstanding shot and you see the large game bird flopping out there in the leaves. You are elated when you rush out to retrieve your tom, but are shocked when you discover two turkeys flopping out there. The daily bag limit is only one bird! You feel that you are an innocent victim since you shot at a single turkey. What do you do?

- Grab the largest bird and run like the devil is after you.
- Sneak both of the turkeys out of the woods to your vehicle. Later you check one and get a friend to check in the other.
- You hide one in a stump hole or under a log; you check in the biggest one.
- You turn yourself in to the local game warden and later tell your sad story to the judge.

Incidentally, this exact incident happened to a Virginia Game Warden many years ago. After discovering two dead turkeys this unusual gentleman wrote himself a summons, gave one turkey to a childrens' home, obtained a receipt and then went to see the trial justice. Naturally the judge did not fine the honorable officer.

Case 5. While hunting with a friend or an acquaintance, you observe him flagrantly breaking a well-known game regulation. What do you do?

- Give him a lecture and threaten to expose him.
- Ignore the obvious violation and forget about the incident completely.
- Notify the proper authorities and volunteer to testify at the trial.
- As a personal protest against his conduct, you quit hunting with the fellow.

Case 6. While set up and fully camouflaged, you are confidently yelping for turkeys. Suddenly you spot some movement close to your hiding place. Instead of a turkey, you

are horrified when you observe another hunter sneaking toward you with his gun already in shooting position. Obviously the guy had been fooled by your calling and was approaching to kill the expected hen. What do you do?

- Shoot the jerk before he shoots you.
- Wave a white handkerchief to show the fellow that you are not a turkey.
- Blow a whistle, yell loudly and bury yourself in the leaves.

Case 7. You own, lease or belong to a private hunt club. One day hunting turkeys you find instead a disreputable character (a well-known violator in your area) poaching on your exclusive hunting property. What do you do?

- Call the wildlife violations hotline and offer to testify in court.
- If you think you can manhandle him, cuss him out and give him a warning.
- Be magnanimous and give the trespasser a written permit to hunt this property in the future.
- Give the fellow a lecture on outdoor ethics, try to convert him and then take him home for dinner.

Case 8. You have been working a gobbler most of the morning but the old tom was taking his good old time approaching within gun range. Then a catastrophe strikes; you discover that some other hunter has appeared on the stage and is working that same tom. You realize that this is an extremely dangerous situation; someone, including yourself, might get shot! What do you do?

- Stay where you are, keep calling and hope that the other guy gets discouraged and departs.
- Get up and rush toward the gobbler hoping to flush him and perhaps get a good wing shot.
- Purposely flush the tom by shooting or yelling thereby making certain that nobody gets the bird.
- Back off, leave the area and allow your competitor to harvest the

tom that you thought was yours.

Case 9. It has been a most disappointing turkey hunting season. You haven't been able to locate but a few of those big black birds in your territories. Then one day a kind friend invites you for a special hunt on his private area which has a fantastic wild turkey population. He trusts you to keep his locale secret. What do you do?

- Frequently sneak back to his property accompanied by other buddies.
- Later repay your benefactor by sharing some of your favorite areas with him.
- Never return to that turkey paradise unless invited.
- Inform everyone but the local sports reporter about that excellent hunting territory.

Case 10. There is an obnoxious braggart in your hunt club. Every year he boasts about exceeding his bag limit on deer, turkeys, grouse and everything else he hunts. He is a constant source of irritation to everyone he contacts, but nobody will ever challenge him. What do you do?

- Ignore the game thief and don't worry about his excesses.
- Attempt to surpass him by killing more illegal game than he does.
- Give him a piece of your mind and get the rest of the club members to join you. Threaten to kick him out of the club if he doesn't change his ways.
- Report this character to the wildlife authorities.

There you have the 10 case history hunting situations. Did you select the high road or the low? Or did you stick to the middle road? These are the kinds of questions that deserve to be asked and pondered. How do you go about becoming a more ethical and respected hunter? Making some of these difficult decisions with that goal in mind is a darn good start. □

C. H. "Kit" Shaffer is a retired Game Department biologist and an expert on turkeys and turkey hunting. He lives in Lynchburg.



Their Time
Is Running Out

photo by Rob Simpson

by Virginia Shepherd

There is a small shorebird that's awfully hard to identify if you're not knowledgeable about such things. You probably know him simply as one of "those little beach birds with a long bill" grubbing around in the surf as you're taking in the sun on one of the beaches on the Eastern Shore. He's not a bird that catches your attention with a flash of color like a cardinal, a goldfinch, or a bluebird.

But, some beach dwellers know him in another way. The piping plover is the bird of the hurricane. Out of the horror and the destruction and the inexplicable darkness of Nature, up pops this little shorebird on the new washouts and shelly beaches. Working miracles out of rubble, the piping plover brings off chick after fluffy chick on the debris of the destruction—and *flourishes*, by golly. Yes, this bird gives us more than a flash of color in the springtime. This drab little shorebird gives us back our spirits at the very moment we thought our world was lost.

Still, for most of us, the piping plover is just another itty-bitty shorebird amongst a lot of drab, itty-bitty shorebirds. So, maybe we won't miss him when he's gone, and maybe there will just be more gulls and terns and other shorebirds to take his place. Maybe it's better not to pick him out from a crowd and wonder about his future.

But, we at the Department of Game and Inland Fisheries make it our job to do just that. For the past four years, we have been documenting the health of the federally threatened and endangered piping plovers on our beaches. Nesting plovers were once a common sight along the Atlantic Coast from Canada to South Carolina, but with only 886 nesting pairs raising young today, and an estimated *minimum* of 1,200 pairs needed to sustain their population, the bird is struggling to survive.

The problem is that the plover is competing for space to live and raise its young on the most valuable real estate in our land—the beachfront.

With those kind of odds, you'd wish this inconspicuous little bird wouldn't be so sensitive to development of its nesting areas, to human disturbance and to predation by feral dogs and cats, and raccoons and gulls. You wish it had a bit of the spunk a herring gull has to pluck out the eye of some intruder, or the flexibility of a Canada goose to adapt to changes in its habitat. You wish it would develop a liking for cornfields instead of high shelly beaches.

But it hasn't. Instead, it comes back every year to the same site, looking for a good place to nest. Never mind that last year's site is now a beach cottage and that its eggs get crushed by vehicles or its chicks get trapped in tire ruts and die in the heat. There is no doubt that the piping plover is on a collision course to extinction unless some miracle happens in the way we humans spend our free time.

Still, Virginia shelters nearly one-quarter of the U.S. East Coast population of piping plovers on her barrier islands for five months in the spring and summer. Our undeveloped islands are the nursery for their young. Plovers build their nests from the shells on our quiet beaches, they forage for marine worms in our sand, and 28 to 35 days later, their young fly off, nurtured on the insects they found in the intertidal mud flats of our islands.

Since 1986, when we began to record how many birds were nesting and fledging young in Virginia, we've found that somewhere between 100 and 120 pairs of plovers attempt to nest on our beaches every year. That's the good news. The bad news is that their numbers don't seem to be increasing, and the habitat they need to survive is shrinking by the day.

This year, we've gotten together with private and public organizations in an effort to post piping plover nesting areas on beaches on the Eastern Shore and at Grandview Beach in Hampton. Please give these birds the space they need during the critical nesting and rearing times from May through July. It's the least we can do, short of wishing for a hurricane to save them. □

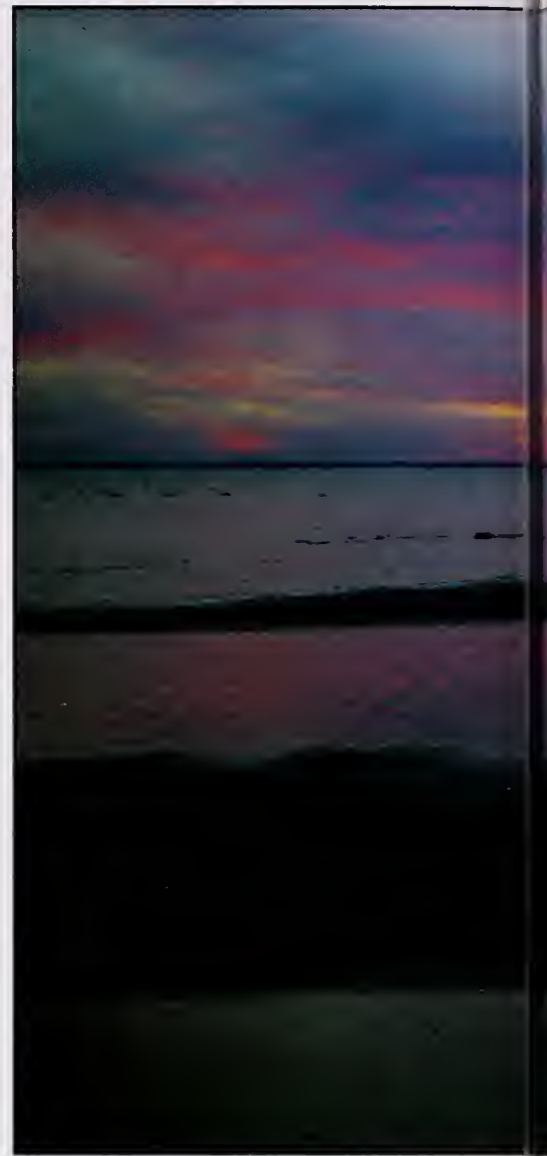


photo by Shirley M. Whitenack
Piping plover by Rob Simpson





The piping plover is in critical danger of being lost to our love affair with the beach during the summer. Virginia holds a precious portion of its nesting population on her barrier islands.

Upper Brandon Recognized As Top Example of Waterfowl Management

James River Corporation was recently honored with the Virginia Chapter of the Wildlife Society's 1990 Citizen Wildlife Conservation Award for the stellar waterfowl management practices it has implemented on Upper Brandon Plantation, an 1800-acre farm located on the south-side of the James River in Prince George County.

Pete Trexler is the manager of the James River Corporation-owned property, and began wildlife management efforts on Upper Brandon six years ago to achieve the corporation's goal of restoring soil and water quality and wildlife habitat, particularly for waterfowl.

So far, the results of the model efforts have been remarkable. The profit-making farm, which produces wheat, corn, soybeans, peanuts and sunflowers, has gone from hosting little or no wintering waterfowl to an average of 3,000 Canada geese and up to 6,000 ducks. Although the major emphasis is placed on waterfowl management, the farm also participates in the Deer Management Assistance Program, and actively manages for turkey, doves, furbearers and nongame species.

The conservation efforts of the James River Corporation have been recognized by Ducks Unlimited, Goodyear, the Soil Conservation Service, and they have received the Chesapeake Bay Clean Water Award.

More importantly, the corporation is not one to keep their success secret. Landowners from around the state recently had the opportunity to benefit from a two-day waterfowl management workshop at Upper

Brandon sponsored by the James River Corporation, the Department of Game and Inland Fisheries, Ducks Unlimited, the U.S. Fish and Wildlife Service, TVA, V.P.I. & S.U., and the VA Co-Op Extension Service, where they were able to see for themselves the successful techniques used on the farm, and how they themselves might be able to use the same techniques on their own land.

James River Corporation and its staff have shown us what cooperative wildlife management is all about—their efforts are of the kind that give us hope for the future of our wildlife. □

Wildlife Division Chief Receives National Recognition

Bob Duncan, newly-appointed chief of the Department's Wildlife Division recently received The Wildlife Society's prestigious McDonough Award for his significant contributions to the wildlife profession, in particular for his work with white-tailed deer management in Virginia. The award was established to honor dedicated professionals in the field of wildlife management, and Bob's contributions were selected for recognition out of a national field of nominees. In our estimation, the selection committee couldn't have picked a better man. □

Little River Is No Longer A Special Regulation Stocked Trout Stream

The section of Little River in Floyd County beginning one mile above and extending two miles below Route 615 north of the town of Floyd is no longer a special regulation stocked trout stream. That section is now posted, and trespassers will be cited. Please note this change in your

April issue of *Virginia Wildlife* in the special 1990 Trout Fishing Guide Part II. The Little River is stocked trout water and open for fishing for 1 to 1½ miles along Route 706. □

Pelham Reservoir Phone Number Changed

The correct telephone number for information regarding Pelham Reservoir in Culpeper County during normal working hours is (703) 825-4772. On weekends, information may be obtained from the local Police Department at (703) 825-0444. Please note this change in your 1990 Fishing Guide in the April issue of *Virginia Wildlife*. □

Letter

More Information on Tasty Fish

I recently saw a copy of your April, 1990 edition which contained the article, "Tasty Fish . . . Guaranteed" by Joan Cone.

The superchilling method for transporting fish, which Ms. Cone found quite successful, was developed here at the NCSU Seafood Lab in Morehead City, as was the lemon-gelatin glaze.

Thought your readers might like to know that if they have questions about seafood or would like to receive our free newsletter, *Mariner's Menu*, they can contact Joyce Taylor, NCSU Seafood Lab, Box 1137, Morehead City, NC 28557, phone 919/726-7341.

More information on superchilling and glazing is available from our main office in Raleigh. "Bringing the Catch Home" is available from UNC Sea Grant, Box 8605, NCSU, Raleigh, NC 27695. There is a slight charge, \$.50, to cover printing costs. A list of other publications on seafood is also available.

Joyce Taylor
Seafood Education Specialist

They Aren't On A Campout

by Spike Knuth

Like clusters of silky gauze resembling extra thick spider webs, they engulf the crotches and forks of small trees. As blotches of white against the greenery of other trees, they show up in April and remain through May into early June.

Where do they come from? How do they live? Do they cause any harm? What are they? Actually, the story begins the previous summer when a little stout-bodied, reddish-brown moth emerges from its cocoon. Its wing span is only an inch or two and it has light, diagonal stripes on its wings.

Upon emerging, the Eastern caterpillar moth adult has a very important mission. It must find a suitable tree to lay its eggs—quickly. Each species of wildlife carries out its reproductive duties as if it alone was depended on to perpetuate its kind. It seems to be ingrained in them. In the case of the little moth, it is a crucial mission and time is short, for its life span is only about three days.

The moth seeks out a wild cherry or apple tree, but will accept pear, peach, hawthorne, other fruit-bearing trees, or some saw timber species. It deposits its egg masses at the tip of a branch. The masses of 150 to 350 eggs are cemented together by a foamy, glue-like substance which hardens and forms dark brown oval-shaped masses that look as if they've been varnished.

The caterpillars emerge in late-March or early-April, when trees are budding. The leaves develop into a food source at just the right time for the caterpillars. At first they mill around until all of the clusters have "hatched." They begin to feed on whatever young leaves are nearby



Tent caterpillars; photo by Spike Knuth.

and start their search for a host tree. Once they find one, they begin spinning their tents. The tent is built in the fork or crotch of a tree, often near the center at the trunk or on the branches. It is made of a silk-like material that the caterpillar secretes from a spinneret located on the underside of its head.

Each caterpillar secretes its silky threads as they wander back and forth as a group building a tent of many layers. Each layer is anchored at a different point and as it dries, each layer shrinks and tightens up, lifting it up from the others forming an air space between them. The tent will serve as a shelter for the night or during inclement weather.

The larvae will continue to use the tent nests for several weeks. As they grow larger, they continually enlarge the tent by adding layers to it on a daily basis. They can enter and exit the tents through openings along the branches. Caterpillars will travel on branches or even away from the host tree on the ground in search of its

preferred leaf foods. As it crawls, it expels a silky trail which is scented with some sort of chemical that enables the caterpillar to find its way back or to communicate to others that it has found an especially good feeding spot.

Mature caterpillars are about two inches long and slightly hairy. They are black with rows of blue and white stripes and markings. Tent caterpillars feed for up to about six weeks, when the full-grown larvae migrate in search of a suitable place to spin a cocoon, a yellowish-white affair that is about an inch long. Here they'll pupate and transform into an adult moth within 14 days to begin the cycle anew.

Due to its liking of fruit trees, the caterpillar is not very popular with fruit-growers or ornamental tree gardeners. A tree can be severely defoliated if heavily infested. Caterpillars can strip a tree of its leaves within weeks. However, most of the damage comes in spring. Once the caterpillars go through their cycle from larvae to adult, the host trees, as bad as they look, are normally able to recover and send out new leaves.

You may see similar, but larger tent-like structures in August and September which engulf the ends of whole, leafy branches. These are the homes of fall webworms which are smaller, hairier and lighter in color.

There are six species of tent caterpillars in North America. The Eastern tent caterpillar is found throughout the United States, but mainly east of the Rocky Mountains and mostly east of the Mississippi River. Other tent caterpillar species occur in North and Central America, Europe and in the Orient. □

Caribbean Watersports

by William Antozzi, Boating Safety Officer

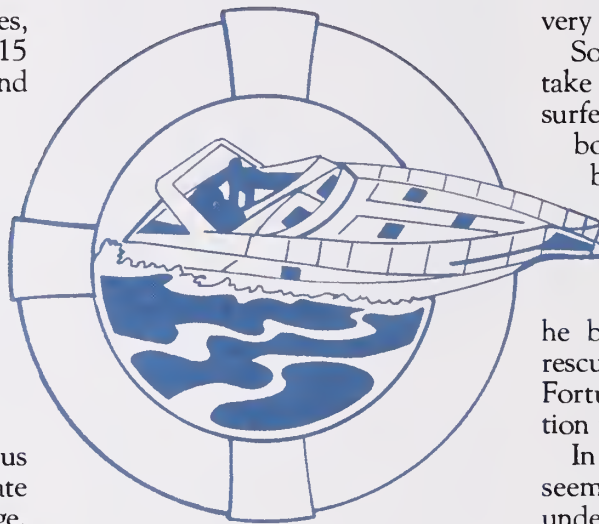
This column was written in Bonaire, Netherlands Antilles, twelve degrees north of the equator; 50 miles north of Venezuela. The trade winds, known as the easterlies, blow constantly, day and night, at 15 knots. The sun shines every day and when there is rain, it doesn't last.

Windsurfers ply the waters on the lee side of the island where wave action is minimal. On the windward side the surf crashes against a freighter which ran aground on the coral several years ago.

The sea has its high and low tides but around this part of the sea, they are only one or two feet. There are wind-driven waves plus occasional big rollers which originate far out at sea where storms rage. Boaters here must anticipate the resulting vagaries of the water, but can usually depend upon the regular trade winds.

Under the water, among the fish and coral, scuba divers, free divers, and snorkelers witness a kaleidoscope of color and endless activity as they swim.

American boaters are very familiar with boating safety requirements and equipment which make boating less dangerous and consequently more enjoyable. In most of the Caribbean, however, recreational boaters seem unfamiliar with such rules and regulations. At one spot, a diver's flag was placed on a buoy to warn boaters that a diver was below and might surface there. You would expect that vessels would stay away from the buoy and would come no closer than 100 feet, which is normal procedure. Many



times, however, local recreational boaters came as close as possible to the flag when passing by, and in two instances fishermen tied to the diver's flag pole and broke it off. Most recreational vessels, including those carrying sightseers or divers do not carry a personal flotation device (PFD) for each passenger as is required in the United States. Some with 15 or 20 passengers carry only two or three PFDs. Rarely does one find a vessel with a sound-producing device such as a whistle or horn, and fire extinguishers are hard to find, but most have a manual bailing device of some kind, even though it is only a bucket.

I have been unable to find any evidence of boating courses, but on the island of Tortola, I was offered a free

condominium and use of a car if I would stay and teach safe boating courses. The need for boating education is great and the results could be very beneficial.

Some people, including tourists, take unnecessary chances. A windsurfer far out at sea fell from his board and seemingly could not get back on his board and stay there.

Each time he stood on it he would fall in again. An hour later, after almost 50 tries, he finally succeeded. Had he become sufficiently fatigued, a rescue might have been necessary. Fortunately, he was under observation from a nearby boat.

In addition, local boaters do not seem to recognize the invaluable underwater treasures they have. The wanton destruction of coral, in particular, is hard to comprehend. I have witnessed the havoc wrought when a careless boater drops an anchor on coral again and again as he revisits a particular beautiful area. Replacement of the coral may take hundreds of years. It would be so easy for the boater to establish a mooring with a pickup buoy which would halt coral destruction and make it easier to hook up and release from permanent anchorage.

Boaters the world over have a lot in common, especially when it comes to the responsibility to protect the underwater environment from any destructive practices or pollution that might result from their sport. They also owe it to their fellow boaters and water sports enthusiasts to do their best to play it safe—wherever they might be. □

A Low Sodium Catfish Dinner

by Joan Cone

Sodium is a naturally occurring mineral found in a wide variety of foods. Although a limited amount of sodium is essential for good health, most of us consume more than we need.

Catfish and other finfish are low in sodium, so we should keep the sodium content at a minimum during preparation and cooking. Using herbs and spices for fish recipes instead of salt (sodium) enhance the flavor.

These recipes will demonstrate how easy it is to use herbs and spices to prepare fish and other foods without added salt. They are designed for a mildly restricted low sodium diet of approximately 2000 mg of sodium a day.

Menu:

Catfish Fillets Creole
Sherried Beans and Mushrooms
Green Salad with Low
Sodium French Dressing
Orange Rhubarb Pie
Low Sodium Pastry

Catfish Fillets Creole

1 pound skinned catfish fillets
1/2 cup chopped green pepper
1 tablespoon oil
2 medium-sized tomatoes, chopped
1 tablespoon minced onion
1 tablespoon lemon juice
1/2 teaspoon basil leaves
1/8 teaspoon pepper
Dash cayenne pepper

Preheat oven to 450 degrees. Arrange fish fillets in a greased 13 x 9-inch pan. Cook green pepper in oil in a saucepan until tender. Add tomatoes, onion, lemon juice, basil, pepper and cayenne pepper. Cook and stir until slightly thickened, 5 to 10 minutes. Spoon over fish and bake at 450 degrees for 15 to 20 minutes or until fish flakes easily

when tested with a fork. Makes 3 to 4 servings. (84 mg sodium per serving)

Sherried Beans and Mushrooms

1 1/4 cups sliced fresh mushrooms (about 4 ounces)
2 tablespoons unsalted butter or margarine
2 teaspoons sherry
1/4 teaspoon ground marjoram
Dash ground nutmeg
1 package (10 ounces) frozen cut green beans

Cook mushrooms in butter in covered medium-sized skillet until tender. Stir in sherry, marjoram and nutmeg. Add beans and simmer, covered, 8 to 10 minutes or just until cooked. Makes 3 to 4 servings. (9 mg sodium per serving)

Green Salad With Low Sodium French Dressing

Combine an assortment of salad greens (lettuce, watercress, escarole) with Low Sodium French Dressing and toss lightly. To have a crisp salad, do not add dressing until ready to serve.

Low Sodium French Dressing

2/3 cup oil
1/3 cup vinegar or lemon juice
2 teaspoons sugar
1/2 teaspoon dry mustard
1/2 teaspoon onion powder
1/4 teaspoon garlic powder
1/2 teaspoon basil leaves
1/2 teaspoon dill weed

Combine all ingredients in container with tight fitting lid. Shake thoroughly to combine. Chill. Makes 1 cup. (2 mg sodium per serving—1 tablespoon)

Orange Rhubarb Pie

1 bag (20 ounces) frozen cut rhubarb (5 cups)
1 to 1 1/4 cups sugar

3 tablespoons cornstarch
1 teaspoon orange peel
1/3 cup orange juice
2 tablespoons unsalted butter or margarine
2 teaspoons sugar

Prepare pastry as directed in next recipe. Preheat oven to 375 degrees. Combine rhubarb, sugar, cornstarch, orange peel and orange juice. Let stand for 30 minutes. Divide pastry in half; roll out one half on floured surface to a 10-inch circle. Place in a 9-inch pie pan and fill with rhubarb mixture. Dot with butter. Roll out remaining pastry and cut in strips about 1/2-inch wide. Arrange half the strips across pie and then weave remaining strips through first strips, forming a lattice. Trim and crimp edges. Sprinkle with 2 teaspoons sugar. Bake at 375 degrees for about 1 hour and 15 minutes or until rhubarb is tender. If necessary, cover edges of pie with foil to prevent excess browning. Makes one 9-inch pie. (9 mg sodium per serving—1/6 of total pie)

Low Sodium Pastry

1/2 cup unsalted margarine, chilled
1 1/2 cups all-purpose flour
1/4 to 1/3 cup cold water

Cut margarine into flour in large mixing bowl, using pastry blender or two knives, until particles are size of small peas. Sprinkle with water. Stir just until dough holds together. Shape in a ball and wrap in plastic wrap and chill until ready to use. Makes enough pastry for 9-inch lattice-top pie or 10-inch single crust pie. (4 mg sodium per serving - 1/6 of recipe without filling)

The sodium content in these recipes was calculated by the R. T. French Company Consumer Services Kitchens.

Lady's Slippers

by Nancy Hugo

Lady's slippers are wildflowers that refuse to be tamed. They don't want to be picked, they don't want to be moved, and they don't want to produce offspring for anyone but Mother Nature. Some of the reasons why it's so hard to domesticate a lady's slipper, I'll explain in a minute, but first take a close look at the flower.

A member of the orchid family, our native pink lady's slipper has a flower with a distinctive lower petal that looks like an inflated sack. These pouch-like blossoms hang from the top of 8-12-inch stems, and they seem to remind most people of shoes. Moccasin Flower and Venus's slipper are two other common names for the pink lady's slipper, and some people refer to the yellow lady's slipper as Whip-poor-will shoes.

This fancy footwear is more than floral ornament. Like all orchids, lady's slippers depend upon insects for pollination, and the "slipper" of a lady's slipper is as effective as a red light in telling insects where the action is. Bees follow the pink veins in the lady's slipper blossom like lines on a map to the one place—a slit in the front of the lip of the blossom—that provides entry into the flower. Once inside, the insect can't get out the way he got in because the edges of this slit are rolled inward. Instead, he must exit through one of two openings at the rear of the slipper where the pollen on his back is scraped off and he's given a new dusting to take to the next flower.

In Virginia, the most abundant of our lady's slippers are the pink lady's slippers, *Cypripedium acaule*. They grow in acid woods, and although I can't find a botanist to confirm it, I've heard the more acid the soil, the pinker the lady's slippers. Sometimes you find them singly, sometimes in



Yellow lady's slippers; photo by Fred Siskind.

large colonies, but my favorite image of pink lady's slippers is one in which they are lined up like birds perched on top of a rotting log.

In about half of the counties in the state you can also find yellow lady's slippers, *Cypripedium calceolus*. They like neutral to basic woodland soils. There are wonderful stands of yellow lady's slippers in the G. Richard Thompson Wildlife Management Area in Fauquier County and along the path up to Crabtree Falls in Nelson County. There is also a smaller and very fragrant variety of the yellow lady's slipper that likes bogs.

The rarest and most beautiful of our lady's slippers is the Showy lady's slipper, *Cypripedium reginae*. Its flower is white with a blush of rosy pink on the inflated sac-like petal. According to Chris Ludwig at the Natural Heritage Program, Showy lady's slippers like habitats called calcareous fens—wetland areas that have a higher pH than bogs, incoming water, and more nutrients in the water than bogs typically have. There are only two known sites of Showy lady's slippers in Virginia, and the Natural Heritage Program monitors them both.

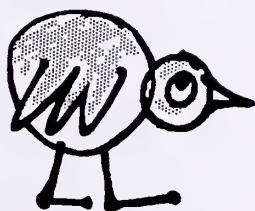
Beauty has been a curse for lady's slippers because it leads to both overpicking and plant collecting. Although none of our lady's slippers are protected by either federal or state law, they should be neither picked nor dug. Picking damages the reproductive ability of the plant (and may give the picker a rash similar to poison ivy). Digging can not only disturb an existing colony, it usually results in the death of the plant you're trying to move.

Lady's slippers are nearly impossible to transplant because they have a symbiotic (mutually beneficial) relationship with fungi that grow in the soil with them. According to Chris Ludwig, the windborne seeds of lady's slippers are so tiny they don't have enough energy stored in them to send up a seed leaf. To make up for this food deficit, they enter into a symbiotic relationship with soil fungi that continues throughout the plant's life cycle. If lady's slippers are moved from soil that has these fungi into soil that doesn't have them, the plants will die, no matter how similar the second habitat looks to the original one.

Lady's slippers are also nearly impossible to propagate, which makes one wonder where nurseries offering them for sale are getting them. According to the Eastern Native Plant Alliance, "no commercial propagation of the pink lady's slipper is yet possible," and "all pink lady's slippers offered for sale come from the wild." Evidently, some popular mail order nurseries grow wild-collected lady's slippers in the nursery just long enough—sometimes only a few weeks—to give them the bogus "nursery grown" label. We are asked not to buy them, no matter who offers them for sale.

The upshot of all this is that the place to enjoy lady's slippers is where you find them. Lady's slippers are wildflowers that insist on their wildness. Let's bless them for that and leave them alone. □

**HAS
EVERYBODY
HEARD
ABOUT
THE
BIRD?**



HELP SAVE THE PIPING PLOVER.

This is the time of year that the endangered and threatened piping plover nests on our beaches. They can't take anybody disturbing their nests, so please obey the wildlife protection signs put up on the Eastern Shore and at Grandview Beach in Hampton. Keep your pets leashed and your beach buggies away from their nesting areas. Support the research conducted by the Virginia Department of Game and Inland Fisheries on this small bird by contributing to Virginia's Nongame and Endangered Species Fund. Send in the coupon in the back of this magazine with your contribution—today. Send for a free brochure on the piping plover by writing to: U.S. Fish and Wildlife Service, One Gateway Center, Newton Corner, MA 02158, attn. Piping Plover.



National Safe Boating Week
June 3 - 9
National Fishing Week
June 4 - 10